Safety Data Collection and Analysis at ICAO

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GRSS 2011

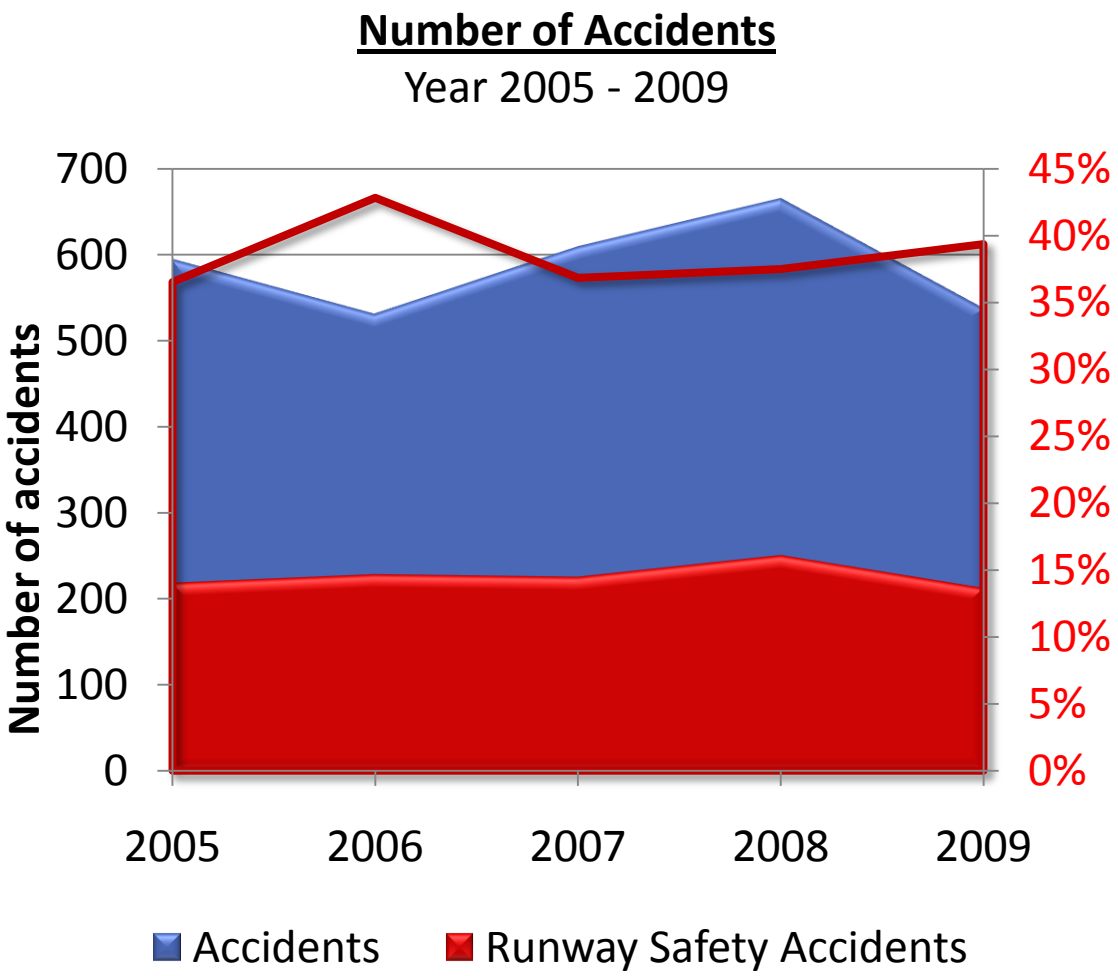
Overview

Welcome

Our “Flight Plan”

- Some figures and trends on runway safety
- Integrated safety data analysis
- i-STARS

Runway Safety

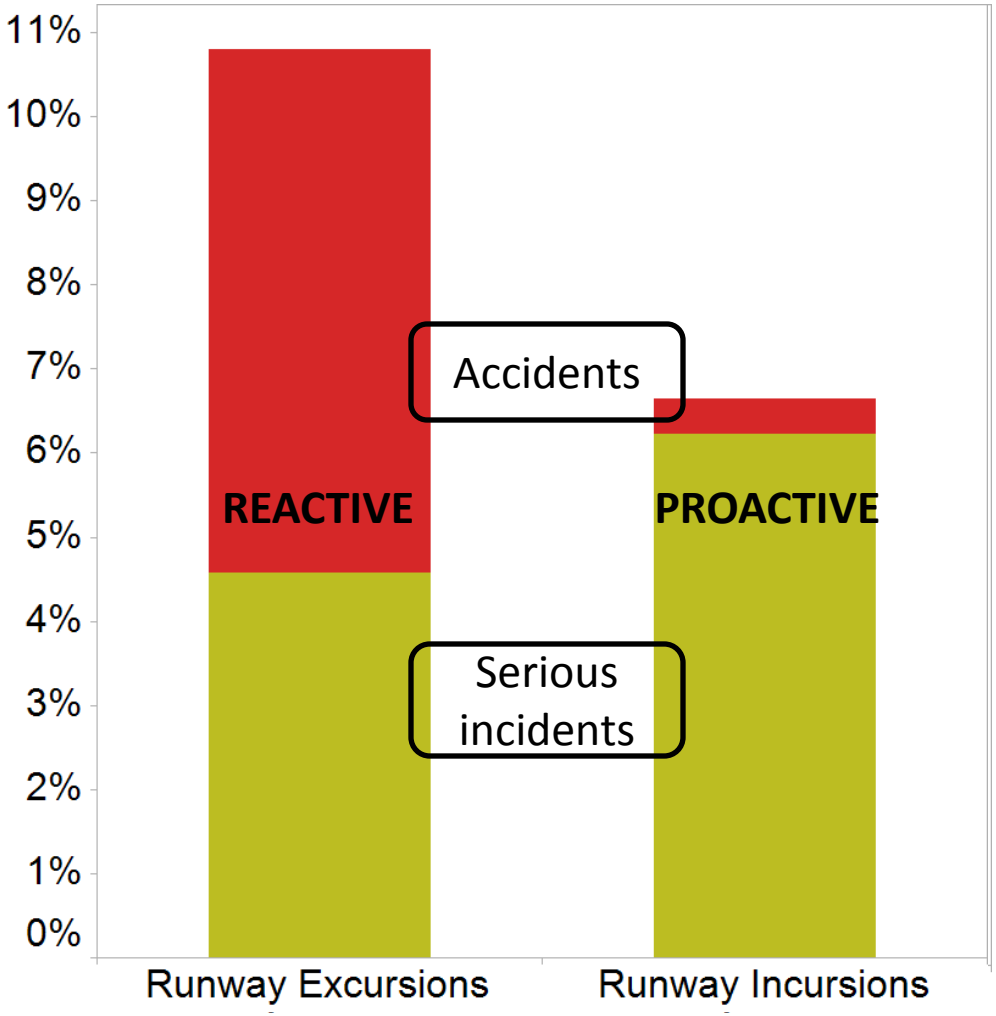


Runway Safety Accidents

- Abnormal Runway Contact
- Birdstrike
- Ground Collision
- Ground Handling
- Runway Excursion
- Runway Incursion
- Loss of Control on Ground
- Collision with obstacle(s)
- Undershoot/overshoot
- Aerodrome

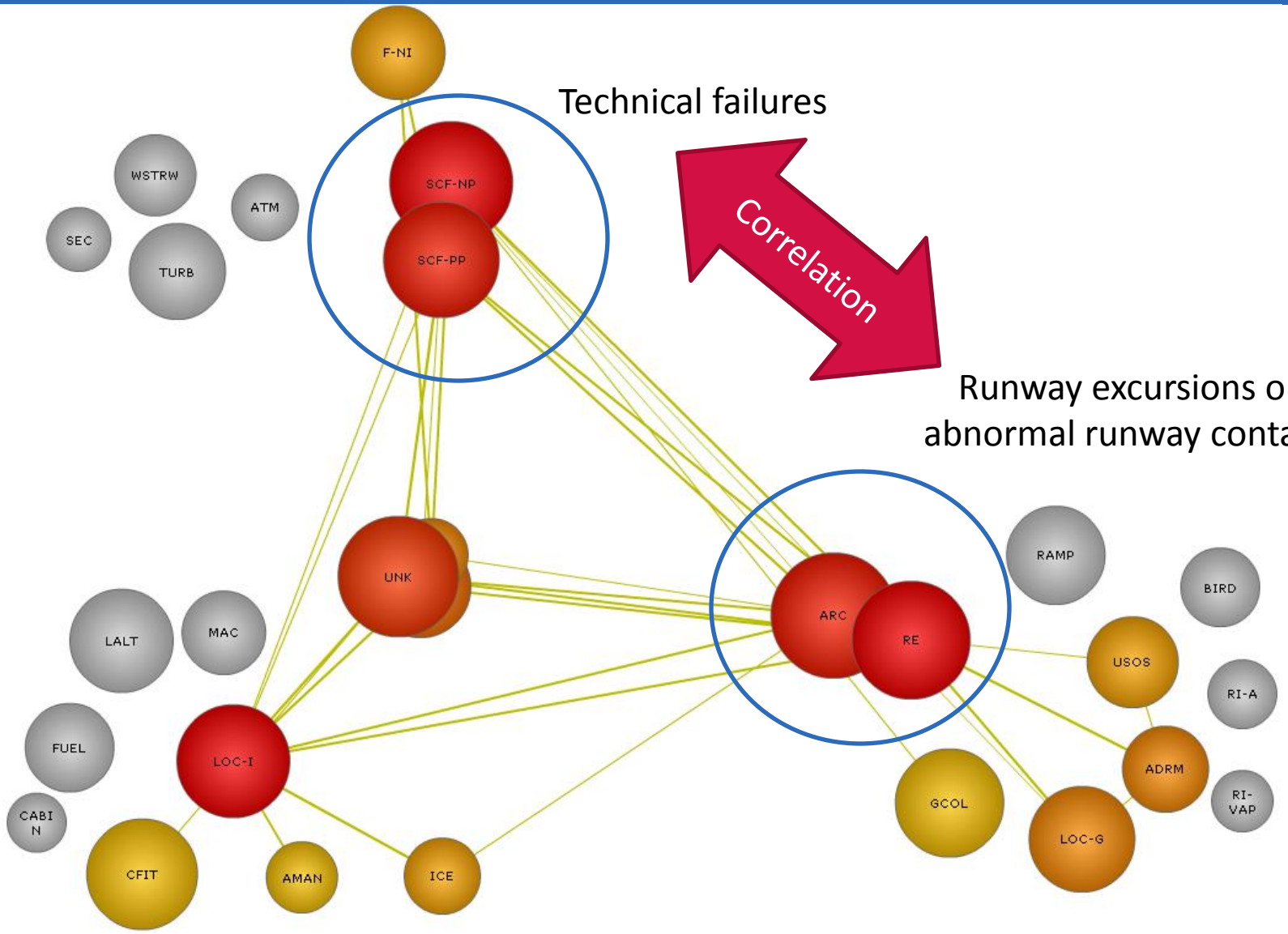
CICTT Occurrence Categories

Incursions and excursions compared

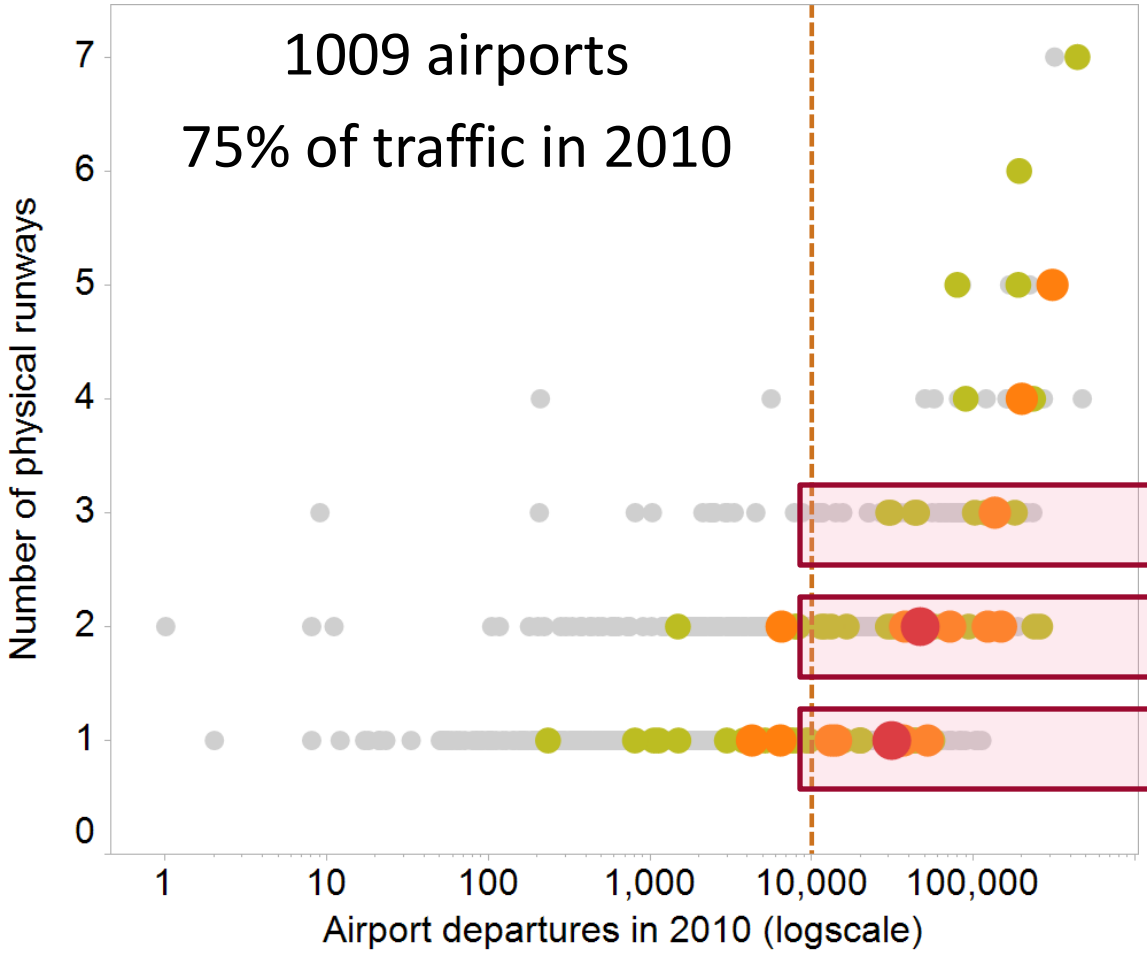


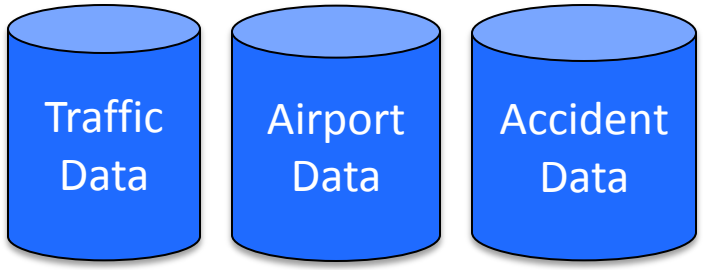
- Runway excursions and incursions account for around 18% of all serious aircraft events
- Reported Accidents vs Serious incidents ratio
  - Incursions 1 : 8
  - Excursions 1.3 : 1

Occurrence category relationship



Single runway impact analysis example





Departures in 2010 (Millions)	Accidents per Mil. departures	
4.1	0.53	-36%
7.1	0.84	
4.6	1.04	-19%

iSTARS

- Concept of operations:
  - Create interoperable tools & analysis methods
  - Integrate multiple data sources
  - Leverage existing data & software applications

iSTARS Site Navigation

ICAO INTEGRATED SAFETY Stars
TREND ANALYSIS AND REPORTING SYSTEM

Version: Beta
Released: November 10, 2010

Want to see how it works?

- Name
- Take a world tour on GIS
- Introduction to iSTARS
- How to navigate through iSTARS
- How to filter and sort iSTARS lists

iSTARS

integrated Safety Trend Analysis and Reporting System

CHARTS

Back to Explore >

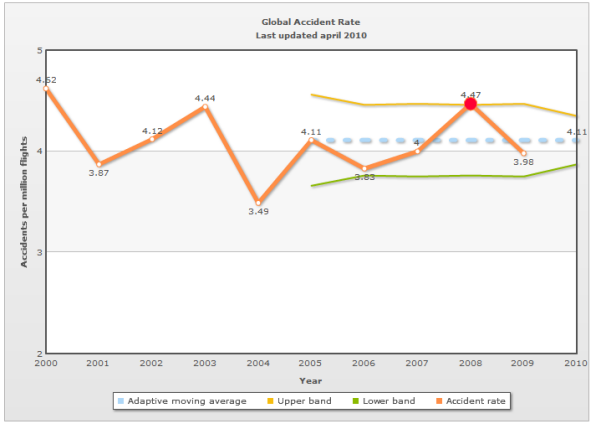
Report a problem >

Global Accident Rate

Description

This linechart shows the trend of the global accident rate. Only commercial scheduled flights were taken into account, including passenger and cargo flights. Accidents are as defined by Annex 13, including fatal and non fatal accidents.

The chart is dynamic and can only be captured through the built-in print screen function (screenshot) or any other screen capture utility you may have installed.



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https://portal.icao.int/ISTARS/Pages2/Explore.aspx

Trusted sites

100%

Runway safety event list in iSTARS

iSTARS

Secretariat > ANB > ISM > iSTARS > Runway Safety Events

Category: ADREP
Last updated: September 24, 2010
Datafields: 25
2.2 MB

EXPORT THIS VIEW

More Views on ADREP

Icon	Name
	All Recent Events
	DashboardTest

ADREP

Runway safety related events

ICAO INTEGRATED SAFETY Stars TREND ANALYSIS AND REPORTING SYSTEM

Description

ADREP contains all officially accident and incidents which were officially notified to ICAO by the States as per ICAO Annex 13 since 1st of January 2 sources.

The list only shows events for which at least one of the following occurrence categories was selected: ARC, BIRD, GCOL, RAMP, RE, RI-A, RI-VAP, consult the Occurrence category taxonomy in the ADREP corner on SKYBRARY.

Local date	Headline	Aircraft type	Aircraft registration	Flight phase	Damage aircraft	Injury level	Location of occurrence	M
Count = 2205								
15/09/2010	Landing gear collapse after hard landing	DE HAVILLAND >> DHC8	LN-WIF	Landing	Substantial	None	Stokka	5 00
12/09/2010	Left wing struck vegetation next to the road on landing.	CESSNA >> 402	ZS-LXB	Landing	Substantial	None	Public road R64 Dealsville	2 70
27/08/2010	Freinage défectueux lors du roulement à l'atterrissage, sortie longitudinale de piste en instruction	PIPER >> PA-23-250 AZTEC	F-OIJT		Substantial	None	AD Saint-Barthélémy (971)	2 70
26/08/2010	Iran Asseman Airline Accident	FOKKER >> 100	EP-ASL	Landing	Substantial	None	Tabriz	27 27

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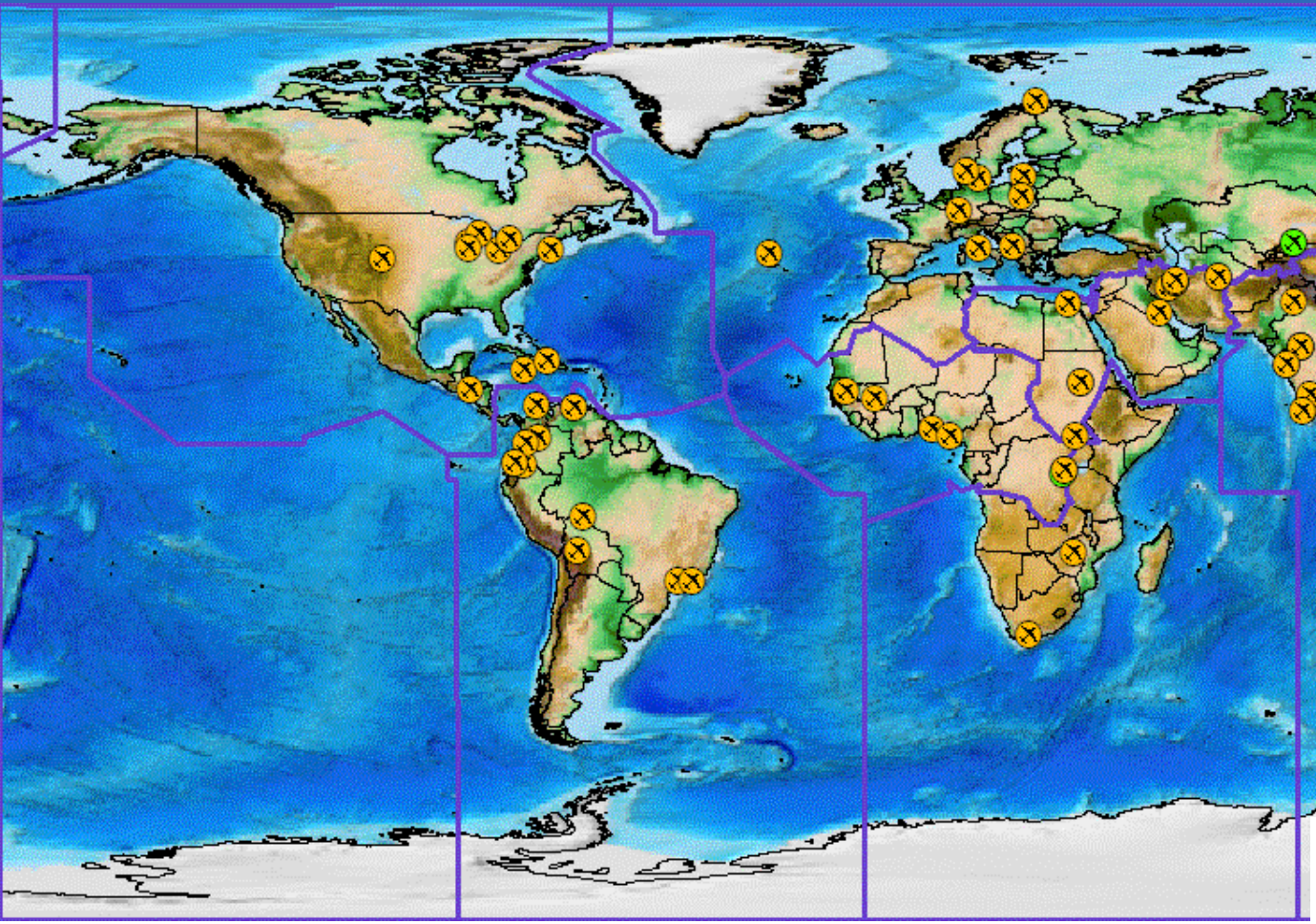
Spatial safety data analysis



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Stars
TREND ANALYSIS AND REPORTING SYSTEM

ICAO Regional Offices

Leading to a series of regional workshops